## **BOOK REVIEW**

## Dragonflies (Naturalists' Handbooks; 7)

Peter L. Millar

Cambridge University Press 1987, ISBN 0521 317657 paperback, pp. 84; RRP. \$21.50

This volume is the seventh in a series designed to aid people without a university education in biology who may be interested in studying local natural history. The editors' preface states "The books in this series offer... the information and ideas needed to plan an investigation and the practical guidance needed to carry it out. They draw attention to regions on the frontiers of current knowledge where amateur studies have much to offer."

The book is divided into 6 chapters, each of which offers information under various subheadings. While other dragonfly faunas are mentioned the emphasis is on the British fauna.

The Introduction contains four sections Evolution; The aesthetic appeal and economic importance of dragonflies; The British fauna; Dragonflies are very good animals for field work.

Chapter two is titled Eggs and Larvae and provides a good summary of the types of eggs and larvae produced by dragonflies. Other topics discussed in this chapter include habitat specificity, different modes of feeding, locomotion, territorial behaviour and respiration.

The third chapter entitled simply "The adult" is by far the largest in the book. There are 21 subheadings covering a wide range of topics which are logically arranged beginning with Emergence, then progressing through such topics as Flight, Thermoregulation, Vision, Feeding behaviour, to Reproduction, Courtship, and Oviposition.

This chapter is particularly well written. In concise, easy to understand text each of the topics is examined. The reader quickly becomes aware of the diversity of dragonfly biology and of the complexity of dragonfly

behaviour. It also becomes apparent that dragonflies are one of the better known groups of insects.

At every opportunity the author highlights where there are significant gaps in our knowledge of dragonflies and suggests research which could be undertaken by the reader.

The fourth chapter provides keys to larvae and adults of British species. The key to larvae was prepared by Graham Vick and the key to adults by David Chelmick.

Any key to species usually contains a lot of specialist terminology and a poor understanding of the terminology often leads to errors in identification. Both of the keys presented here are profusely illustrated. Definitions of many terms are provided and important structures are clearly labelled on the illustrations.

Chapter five is a brief examination of the status of the British dragonfly fauna which notes that 11 of 39 breeding species are currently under threat. Drainage of wetlands for land reclamation and pollution from agricultural, industrial or sewage disposal are responsible.

Attempts to preserve habitats or create new ones are documented, and descriptions of ideal dragonfly habitats are provided.

The dragonfly recording scheme, which seeks to update records of dragonfly species in Britain, is described at the end of the chapter.

Chapter six describes some techniques for studying dragonflies and includes some useful tips on experimental design and how to write up the findings of research so that it may be published. Several journals which publish short papers on insect biology are listed and there is also a list of useful addresses, including several dragonfly societies, entomological

suppliers and the headquarters of the dragonfly recording scheme.

An excellent bibliography of important works on dragonflies is provided under the heading Further Reading.

There are two appendices, the first is a checklist of the British species and the second documents the months of the year when adults of the British species appear.

The final part of the book is a small index. The volume is well illustrated throughout with line drawings and there are four good colour plates in the centre of the book.

As the subject of this work is the dragonflies of Britain, it could be said that it is of limited use outside the British isles or western Europe. While it is certainly true that most of the species mentioned are more or less endemic to that region, the general description of dragonfly biology provided would be useful anywhere.

The volume is a very handy size for field studies and is printed on good quality paper. One minor fault with the paperback version is the use of two staples to bind the pages together; one of the staples fell out not long after I began reading.

In conclusion, I enjoyed reading this book which I found informative and stimulating. It is well written and illustrated. Perhaps the most endearing quality of the book is the obvious fascination of the author for all things dragonfly. I have no hesitation in recommending this volume to anyone who is interested in dragonflies or general natural history.

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